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What's in your lap.

The flying laptop has been a reliable member of our flightcrews for a long time now. Some say the laptop decreases our work load while others will argue the opposite. But it is here to stay. However, what would you do if one suddenly started to get a little too hot to handle? First it becomes notably warm. So you switch it off. Then it starts to smoke. And finally it bursts into flames. Suddenly, your Nomax flight suit starts to have meaning. But what to do now?? We will talk about that a little later.

While the potential dangers of lithium ion batteries have long been known, even ni-cad batteries were banned in ELT's by the FAA in the early eighties.

The possible dangers of laptop computers bursting into flames on an aircraft could be pretty discomfoting, to say the least.

The US Consumer Product Safety Commission has stated documentation on 339 cases of lithium and lithium-ion batteries in portable gizmos, "overheating, emitting smoke and fumes or exploding during the period 2003 to 2005."

How many since?

Of perhaps more concern is that fact the Federal Aviation Administration has logged 60 such incidents in aircraft or airports since 1991.

A Lufthansa flight at Chicago O'Hare International Airport preparing for a nine-hour flight to Munich, reported that smoke began to float from the luggage bin above a passenger seat. A smoking case was tossed out of the plane before erupting into flames. Inside, investigators discovered a "charred laptop computer and a six-pack of melted lithium-ion batteries."

The owner of the laptop confessed to having bought non-standard batteries on eBay. This information was reported by The Wall Street Journal.

Other incidents that involve rechargeable lithium-ion batteries now most commonly used in laptops have sparked several investigations into their safety, or lack of such. The investigation are on-going.

So far, manufacturers have recalled more than two million rechargeable batteries for mobile phones, laptops, portable DVD players and digital cameras, etc. These include a total of 300,700 laptop batteries recalled since May 2005. Hewlett-Packard has voluntarily recalled about 70,000 lithium-ion batteries that shipped with several models of its HP and Compaq laptops.

Nine models of HP Pavilions, nine models of Compaq Presarios, two HP laptop models, and one HP Compaq laptop model sold between August 2007 and March 2008 all shipped with the unstable batteries.

According to a CPSC statement there were two reports of batteries that "overheated and ruptured, resulting in flames/fire that caused minor property damage."

Good news in the future.

Laptops and other devices that occasionally explode due to their lithium batteries breaking down could soon be over.

A new technology called Stoba, may be in the future. It sits between the positive and negative poles of the battery.

When the battery temperature hits 130 degrees centigrade, Stoba transforms from a porous material to a solid film barrier and shuts down the reaction.

